

OPINION

on the materials submitted for participation in a competition for the academic position of "Professor" in the field of higher education 5. Technical Sciences, Professional field 5.13. General Engineering, scientific specialty Ergonomics and Industrial Design, in the discipline Design of Residential Interior and Furniture, for the needs of the Department of Furniture Production, Faculty of Forest Industry, announced by the University of Forestry in the State Gazette No. 18/1.3.2024, with the procedure code WWI-P-0224-123

Candidate for participation in the contest is:

Assoc. Prof. Dr. Eng.-Designer Pavlina Minkova Vodenova

<u>Prepared the opinion:</u> Assoc. Prof. Dr. Eng. Desislava Ivanova Angelova, University of Forestry, field of higher education 5. Technical Sciences, professional field 5.13. General Engineering, scientific specialty Ergonomics and Industrial Design.

1. Brief biographical data for the candidate

The only candidate competing for the academic position "Professor" Assoc. Prof. Dr. Eng.-Designer Pavlina Minkova Vodenova, was born on August 7, 1976, in the city of Sofia. In 2000, she graduated with a master's degree in engineering, specializing in Interior and Furniture Design from the University of Forestry. From January 2000 to August 2009, she worked in various companies in Sofia in the field of marketing, design, and furniture production: SCS Unidesign; AVEL – 52 Ltd.; AGON Ltd.; and CAMMARTON BULGARIA Ltd., where she was responsible for designing furniture and complete interiors for residential and public spaces. Since August 15, 2009, she has been employed on a full-time basis at the University of Forestry, holding the positions of Assistant (August 15, 2009 – April 12, 2018, in the Department of Interior and Furniture Design), Senior Assistant (April 12, 2018 – October 1, 2020, in the Department of Interior and Furniture Design) and Associate Professor (since October 1, 2020) in the Department of Furniture Production, where she currently serves as the head of the department. For six years (September 2009 – July 2015), she led lectures and seminars as a part-time lecturer at New Bulgarian University.

She defended her doctoral dissertation at the University of Forestry on July 3, 2017, on the topic: "A Systemic Approach to Designing the Children's Environment in Contemporary Housing," under the supervision of Assoc. Prof. Dr. Yancho Genchev.

2. Correspondence of the submitted documents and materials of the applicant according to the Rules of the Development of academic staff at the University of Forestry.

The documents submitted by the candidate comply with the requirements of the Regulations for the Academic Staff at the University of Forestry (RAS at UF). The presented report on meeting the Minimum National Requirements for holding the academic position of "Professor" reflects the main scientific achievements (published monographs, book, textbook, utility model, articles and conference reports, citations of scientific publications, and participation in various projects) of the candidate, Assoc. Prof. Dr. Eng.-Designer Pavlina Minkova Vodenova. The report shows that the candidate has met all the minimum requirements, including:

- The candidate has obtained a PhD with diploma No. UF-PhD-2017-95 [A1] 50 points;
- The candidate has published a monograph on the topic: "Social Design with a Focus on Children," published in 2023 by Avangard Prima, Sofia, 220 pages, with reviewers: Prof. Dr. Arch. Regina Raycheva, Assoc. Prof. Dr. Ofelia Kaneva [B3.1] 100 points;
- The candidate participates with a monograph co-authored by two other authors, which is not presented as the main habilitation work, on the topic: "Design Process Management. Current Issues," published in 2020 by Avangard Prima, Sofia, 250 pages, with reviewer Prof. Dr. Matilda Ivanova Aleksandrova-Boshnakova. According to the attached distribution protocol, the authorship distribution is as follows: Prof. Dr. Diana Ivanova 34%; Assoc. Prof. Dr. Pavlina Vodenova 51%,

and Gergana Koleva - 15%, which corresponds to point 10 of the Additional Provisions to the Act for the Development of the Academic Staff in the Republic of Bulgaria, notes to the Minimum National Requirements, and point 5 of the RAS at UF [G 5.1] - 30 points;

- The candidate participates with a published book based on a defended dissertation for the award of the educational and scientific degree "doctor" on the topic: "Methodology for Designing Children's Furniture and Environment, Based on the Systemic Approach," Sofia, Avangard Prima, 2023, 150 pages [G 6.1] 30 points;
- The candidate participates with 9 scientific publications in journals indexed in world-renowned databases [G7.1; G7.2; G7.3; G7.4; G7.5; G7.6; G7.7; G7.8; G7.9] 166.66 points, and 9 scientific publications in non-indexed journals with scientific reviewing and edited collective works [G8.1 ÷ G8.9] 139 points;
- The candidate reports a realized author project, including the design and complete reconstruction of a sports hall located on April 20th Street, Sofia, and an office in the Ministry of Youth and Sports [G10.1] 30 points;
- The candidate has listed 6 citations in scientific journals indexed in world-renowned databases or in monographs and collective volumes [D12.1÷D12.6]; 8 citations in monographs and collective works with scientific reviewing [D13.1÷D13.8], and 3 citations in non-indexed journals with scientific reviewing [D14.1÷D14.3] 150 points;
- The candidate participates in 4 national [E $18.1 \div 18.4$] 40 points and 7 international educational projects [E $19.1 \div 19.7$] 140 points. There is a published university textbook co-authored [E 23.1] 20 points and a registered utility model co-authored [E 26.1]. 20 points.

All materials submitted for the competition are described and presented with supporting evidence. The total number of points from the scientific output that I accept in this Opinion is **935.66 points**, with a minimum required of 600 points. The candidate, Assoc. Prof. Dr. Eng.-Designer Pavlina Vodenova, exceeds the following indicators of the Minimum National Requirements for holding the academic position of "Professor" in the field of higher education 5. Technical Sciences: indicator "G" is exceeded by 195.66 points - 395.66 points out of the required 200 points; indicator "D" is exceeded by 50 points - 150 points out of the required 100 points; and indicator "E" is exceeded by 90 points - 240 points out of the required 150 points.

3. Assessment of the candidate's educational and pedagogical activities (work with students and PhD students)

Assoc. Prof. Dr. Eng.-Designer Pavlina Minkova Vodenova has been employed as a lecturer at the University of Forestry since August 15, 2009, on a full-time basis, leading seminars in the disciplines: Design of Residential Interior and Furniture; Design of Environment for People with Disabilities; Design of Period Style Interior; Design of Avant-garde Furniture; Design of Lighting Fixtures; Design of Furniture for Mass and Serial Production; Management of Design Process; and Interior Architecture, and giving lectures in the disciplines: Design of Residential Interior and Furniture and Design of Environment for People with Disabilities. She is part of the teaching team for the Design Project Module (Project Week) for students in the Engineering Design (Interior and Furniture Design) Program. As a part-time lecturer at NBU, Assoc. Prof. Pavlina Vodenova conducted lectures and seminars in the disciplines: Techniques and Materials, Basics of Construction Part 1, and Basics of Construction Part 2.

Assoc. Prof. Dr. Eng.-Designer Pavlina Vodenova actively participates in the final stage of student education as a diploma supervisor for more than 41 students and a reviewer of 115 diploma works. She is the scientific supervisor of one regular PhD student in the Scientific Program Ergonomics and Industrial Design - Maya Atanasova Ivanova, who has been discharged with the right to defend, scheduled for September 9, 2024.

4. Assessment of candidate's scientific, scientific-applied and publishing activities

4.1 Participation in scientific, scientific-applied and educational projects

Assoc. Prof. Dr. Eng.-Designer Pavlina Vodenova has participated in 4 educational projects at the University of Forestry, co-financed by the European Union through the European Structural and Investment Funds, as well as the Human Resources Development and Science and Education for Smart Growth Programs, as part of the expert team, as a member of a working group, and as part of the target group of the project. Since 2011, Assoc. Prof. Dr. Eng.-Designer Pavlina Vodenova has actively participated in various international student projects: 6 projects funded by the Erasmus Program and 1 project at Nacional Academy of Art – Sofia.

4.2 Characterization of published scientific results

Published by Assoc. Prof. Dr. Eng.-Designer Pavlina Vodenova scientific results after acquiring the academic position "Associate Professor" can be analyzed as follows:

Total number of publications -21. Of them: habilitation thesis - monograph -1 issue (independent); a monograph that is not presented as the main habilitation thesis -1 issue (with two co-authors, according to a separation protocol -51% of its participation from 250 pages); published book based on a defended dissertation work -1 issue; scientific publications -18 issues.

Articles can be classified as follows: publications in journals with an impact factor - no; referenced in Web of Science and/or in SCOPUS - 9 issues; in non-refereed scientific journals - 8 issues; in edited collective volumes - 1 issue.

Place of publication – out of 18 issues: in Bulgaria – 16 issues; abroad - 2 issues.

Language in which they were published - out of 18 issues: in Bulgarian - 7 issues; in English - 11 issues.

Number of co-authors – a total of 8: independent - 7 issues; with one co-author – 5 issues; with two co-authors – 2 issues; with three co-authors – 3 issues; with four co-authors – 1 issue.

The presented research activity of the candidate is in the field of Design, as the subject of research are the following topics: Design of Children's Environment [A1.1; B 3.1; G 6.1]; Social Design [B 3.1; G7.4; G7.5; G8.6]; Management of Design Process [G5.1; E23.1]; Interior Design [G7.1; G7.2; G7.6; G7.8; G8.1; G8.2; G8.3; G8.4;]; Interior Design Education [G7.2; G7.3; G7.4; G7.5; G7.7; G7.9; G8.8; G 8.9]; User Experience Design [G8.5; G8.7].

4.3 Reflection of the Candidate's Scientific Publications in Literature (known citations)

Assoc. Prof. Dr. Eng.-Designer Pavlina Vodenova participated in the competition with 28 citations, of which: 10 citations in scientific publications, referenced and indexed in world-famous databases with scientific information or in monographs and collective volumes; 14 citations in peer-reviewed monographs and collective volumes, and 4 citations in non-refereed peer-reviewed journals. The 12 publications are cited - independent and co-authored, by various foreign and Bulgarian scientists, which is proof that the scientific community has know the professional results of the candidate.

4.4 Contributions to the candidate's work (scientific, scientific-applied, applied)

The Opinion does not comment on the contributions of the publications presented in the competition under the numbers: G7.1; G7.3; G7.6; G7.7; G7.8; G7.9; G8.8, G8.9 and a registered utility model [E 26.1], in which we are co-authors. I declare that our participation in their development and publication is equal.

The main scientific and theoretical contributions are presented in the monograph "Social Design with a Focus on Children", which is the main habilitation work and personal contribution of the candidate. They present social design for children as a process of creating products, services or initiatives that aims to solve or prevent social problems, taking into account the needs and interests of stakeholders.

The remaining contributions of the monographic work can be summarized as follows:

Scientific and applied contributions:

- 1. The importance of social design for children and its influence on the social, emotional and physical condition of children has been proven;
- 2. The development of social design for children has been traced in the context of different cultures and traditions. The factors that contributed to the emergence and evolution of social design for children are summarized and systematized;
- 3. The main principles that should be taken into account when designing a children's environment are clarified, in order to prioritize the needs of children.

Applied contributions:

- 1. Models of social design application that have achieved sustainability over time have been studied. Their results can be applied in various real-world scenarios and lead to a number of valuable guidelines:
- 2. A number of organizations, educational institutions, approaches and movements on a global scale with a strong social focus on children were honored;
- 3. The various manifestations of social design for children are systematized design for development, design for social innovation, design for social change and others.

Apart from the thesis contributions, the overall contributions of the publications listed so far can be summarized as:

Scientific and theoretical contributions:

- 1. A theoretical model and methodological guidelines have been created for the design of individual products and environments intended for children, with continuous consideration of the influence of function, construction, material and objective features.
- 2. It has been proven that design thinking is a broad-spectrum methodology that can be a successful tool in the development of new solutions products, services and systems;
- 3. New phases were added in the interior design process, as well as new connections between them were discovered, in the context of the modern technological development of the design process.

Scientific and applied contributions:

- 1. Systematized the necessary single-purpose products, ensuring activities in the children's environment in the home. On the basis of this systematization, the possibilities for grouping the activities in one multifunctional product are derived;
- 2. An algorithm of work in the separate phases of analysis and design of the children's furniture and interior is defined;
- 3. An innovative model for student training was proposed and tested, generating a spirit of cooperation, quality communication, identification of strengths and positive attitude among all participants. It has been proven that through the use of the following key factors: insight into the essence of the creative profession "designer"; the difference in education of designer; creation of a specific creative atmosphere and relationship between teachers and students, and the use of new, non-traditional teaching methods, creates creative self-confidence and professional work skills of students. It has been established that in the conditions of a competitive race in the field of education, the main factor for the development of design specialties is the possibility of implementing a change in the basic model of education.

Applied contributions:

- 1. Enrichment of existing knowledge in the field of design thinking.
- 2. New design methods for designing children's furniture and environment have been introduced and tested in the students' training;
- 3. New methods of teaching and training of students have been tested, which increase their commitment and confidence in the process, and contribute to the introduction of new opportunities both to evaluate their own idea and to relieve the teacher from direct control in some management aspects of the educational process.

5. Assessment of the applicant's personal candidate

Of the submitted materials for the "Professor" competition, the monograph, the published book based on a defended dissertation work and 7 scientific publications are entirely personal work of the candidate. Of all publications co-authored by Assoc. Prof. Dr. Eng.-Designer Pavlina Vodenova, she is the lead author in 4 of them. A separation protocol is presented for a monograph that is not presented as a habilitation thesis. This reinforces the impression of a substantial personal contribution.

6. Critical remarks

I have no critical comments on the research, teaching and expert activities of Assoc. Prof. Dr. Eng.-Designer Pavlina Vodenova.

7. Personal impressions

I have known Assoc. Prof. Dr. Eng.-Designer Pavlina Minkova Vodenova since the fall of 1995, when she started studying at the Forestry University. I am very familiar with her personal and

professional qualities, having witnessed both her training and her personal and professional development. Assoc. Prof. Dr. Eng.-Designer Pavlina Vodenova stands out as an erudite scientist with a scientific output in the field of Design - theory, practice and training. The result of the new teaching methods applied by her is visible both in the works of the students in the disciplines in which she teaches, and in the excellent performance of the graduates and doctoral students she has led. She communicates with ease and in an excellent way with colleagues from the University and beyond. She has proven her dynamic teamwork skills through her participation in numerous institutional and international team projects and initiatives.

8. Conclusion

The above-mentioned facts and the attached evidentiary material show that the candidate Assoc. Prof. Dr. Eng.-Designer Pavlina Minkova Vodenova is an established professional in the field of Interior and Furniture Design, and a teacher with experience and authority among colleagues. The scientific production presented in the contest fulfills the criteria of the Scientometric Requirements for occupying the academic position "Professor" at University of Forestry.

In connection with the above, I propose that Assoc. Prof. Dr. Eng.-Designer Pavlina Minkova Vodenova be elected as a "Professor" in the discipline "Design of Residential Interior and Furniture" in the Professional field 5.13. General Engineering, scientific specialty "Ergonomics and Industrial Design".

Prepared the opinion:

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